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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/575,366	04/11/2006	Keiji Shigesada	Q93602	9057
23373 7590 10/06/2009 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037				
EXAMINER				
KURTZ, BENJAMIN M				
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1797				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/575,366

**Applicant(s)**

SHIGESADA ET AL.

**Examiner**

BENJAMIN KURTZ

**Art Unit**

1797

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 July 2009.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-9 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 11 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/CIS)  
4) ☐ Interview Summary (PTO-413)  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_  
Paper No(s)/Mail Date \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102 and 103***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**1. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Gianos et al. US 4 014 653.**

Claim 1, Gianos teaches a porous membrane cartridge comprising: a cylindrical barrel (18) having openings at a top end and a rear end, respectively, a cap (10) formed into a cylindrical shape having a fit-in portion fitted outside the top end, abutting with an opening edge of the top end, and having a sandwiching face sandwiching a porous membrane (16) between itself and the barrel, and the porous membrane sandwiched between the opening edge of the barrel and the cap, wherein the cap is fixed to the barrel so as not to be pulled out of the barrel in a state of crushing a peripheral edge of

the porous membrane and sandwiching the porous membrane between itself and the cap and wherein a diameter of an inner end of the opening edge matches a diameter of an end at an inner perimeter side of the sandwiching face (fig.1-4, col. 2, lines 25-30).

**2. Claims 2-4, 6, 8 and 9 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Gianos '653.**

Claim 2, Gianos teaches the cartridge of claim 1 but does not teach the barrel and cap being welded by ultrasound. The recitation of welding by ultrasound renders the claim a product by process claim. "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 227 USDQ 964 (1985). The process of connecting the barrel and cap of Gianos is deemed a structural alternative to the process of ultrasonic welding.

Claims 3 and 4, Gianos further teaches the opening edge of the barrel is formed to a taper where an inner perimeter side is more retreated than an outer perimeter side, and the taper is formed with continuing into a flat portion formed at an outmost portion of the opening edge (fig. 4). Gianos does not teach the opening edge being welded to the sandwiching face of the cap. The recitation of welding renders the claim a product

by process claim. "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 227 USDQ 964 (1985). The process of connecting the barrel and cap of Gianos is deemed a structural alternative to the process of welding.

Claim 6 and 8, Gianos further teaches the barrel comprises a joint portion, which is configured to abutting with an opening edge of the fit-in portion of the cap, on an outer perimeter of the barrel (fig. 2-4). Gianos does not teach the cap and barrel being adhered or welded. The recitation of adhering or welding renders the claim a product by process claim. "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 227 USDQ 964 (1985). The process of connecting the barrel and cap of Gianos is deemed a structural alternative to the process of adhering or welding.

Claim 9 recites only process limitations for making a cartridge that do not add any further structural limitations to the apparatus. Gianos does not teach the barrel being injection molded. The recitation of molding renders the claim a product by process

claim. "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 227 USDQ 964 (1985). The process of making the barrel of Gianos is deemed a structural alternative to the process of molding.

**3. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gianos '653 in view of Byrns US 3 932 153.**

Gianos teaches the cartridge of claim 2 but does not teach a bead portion as an energy director circularly formed on one of the opening edge or sandwiching face and the porous membrane being sandwiched and crushed with the bead portion.

Byrns teaches a porous membrane cartridge comprising a barrel (18) and a cap (18) with the barrel having an opening edge and the cap having a sandwiching face and a porous membrane (16) sandwiched between the opening edge of the barrel and the cap where the opening edge has a bead portion (26) circularly formed thereon with the porous membrane sandwiched and crushed with the bead portion (fig. 5, 7). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the bead portion of Byrns with the device of Gianos because the bead radially stretches and tensions the filter sheet between the housing sections without twisting or

pivoting the housing sections relative to one another which could distort or wrinkle the filter element possibly decreasing the efficiency of the device (col. 4, lines 1-15).

The recitation of welding by ultrasound renders the claim a product by process claim. "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 227 USDQ 964 (1985). The process of connecting the barrel and cap of Gianos is deemed a structural alternative to the process of ultrasonic welding.

**4. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gianos '653 in view of Cosack US 5 096 575.**

Gianos teaches the cartridge of claim 1 where the cap is fixed to the barrel but does not teach a depression and protrusion on the barrel or cap.

Cosack teaches a porous membrane cartridge comprising: a cylindrical barrel (2) having openings at a top end and a rear end, respectively, a cap (3) formed into a cylindrical shape having a fit-in portion fitted outside the top end, abutting with an opening edge of the top end, and having a sandwiching face sandwiching a porous membrane (12) between itself and the barrel, and the porous membrane sandwiched between the opening edge of the barrel and the cap, wherein the cap is fixed to the

barrel so as not to be pulled out of the barrel in a state of crushing a peripheral edge of the porous membrane and sandwiching the porous membrane between itself and the cap and the cap is fixed to the barrel by an engagement between a depression formed on an inner perimeter face of the cap and a protrusion formed on an outer perimeter face of the barrel (fig. 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the connection mechanism of Cosack in the apparatus of Gianos because the projection and groove snap together such that an axially action pressure is generated, which is transferred for serving to seal the filter element by compression (col. 5, lines 3-11).

### ***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of



the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to BENJAMIN KURTZ whose telephone number is (571)272-8211. The examiner can normally be reached on Monday through Friday 8:00am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Benjamin Kurtz  
Examiner  
Art Unit 1797

/Krishnan S Menon/  
Primary Examiner, Art Unit 1797